

**REMARKS**

The Office Action mailed November 8, 2004 has been reviewed and carefully considered. Claims 1-6, 9-16, 19 and 20 remain pending, of which the independent claims remain 1, 9 and 19. Reconsideration of the above-identified application, in view of the following remarks, is respectfully requested.

Claims 1-20 stand rejected under 35 U.S.C. 102(e) as anticipated by U.S. Patent No. 6,064,764 to Bhaskaran.

Claim 1 recites:

A method . . . comprising the steps of: . . . (B) determining a digital signature . . .; and (D) assigning . . . to the digital signature, wherein . . . the transform representation of the image includes a plurality of blocks that each have at least one high frequency coefficient . . . and step (D) further includes repeating the coefficient values corresponding to the signature . . . such that each block includes a coefficient having a value corresponding to a signature digit

Bhaskaran, by contrast, although disclosing “a plurality of blocks that each have at least one high frequency coefficient,” a) skips over blocks whose 63<sup>rd</sup> coefficient is low-valued; and b) halts when the signature is embedded.

As a consequence and correspondingly, Bhaskaran fails to disclose or suggest a) “repeating . . . such that each block includes a coefficient having a value corresponding to a signature digit”; and b) “repeating the coefficient values corresponding to the signature . . . such that each block includes a coefficient having a value corresponding to a signature digit.”

As to item b), the third sentence of item 3 of the final Office Action (hereinafter “Office Action”) suggests that the Bhaskaran signature embedding does not halt when the signature is embedded, but continues.

Specifically, the Office Action states, “Since this determination [as to whether to embed a watermark bit in the current block] is done for each block, the process is repeated for all the blocks.” (bracketed material added for clarity).

The applicant traverses this suggestion by the Office Action.

Bhaskaran determines “whether to embed a watermark bit in each block based on the highest frequency transform coefficient in that block and the number of watermark bits remaining to be embedded in the digital image” (col. 3, lines 3-5). “Then, each watermark bit is embedded in one of the blocks for which it was previously determined to do so” (col. 3, lines 13-15).

In view of the above analysis, the Office Action appears to have misinterpreted the expression “all (of) the blocks” as used in Bhaskaran. In the context of the reference, this expression is short for “all (of) the blocks needed to embed the watermark.” Once “each watermark bit is embedded in one of the blocks,” (col. 3, lines 13-15), steps 103, 203 take the “NO” branch.

For at least this reason, Bhaskaran fails to anticipate claim 1.

As to item a), Bhaskaran fails to feature or suggest an embodiment in which each block includes a coefficient having a value corresponding to a signature digit,” at least due to shortcoming noted with respect to item b).

In addition, to save bandwidth and/or storage, “only those blocks are chosen to embed a watermark bit where the 63<sup>rd</sup> coefficient is already non-zero,” and “we do not

choose as embedders even the blocks where the 63<sup>rd</sup> coefficient (dequantized) is plus or minus 1” (col. 5, lines 17-19, 24-26).

For these reasons too, Bhaskaran fails to anticipate claim 1.

Notably, and in addition, there is no suggestion in Bhaskaran of giving up the bandwidth/storage advantage to embed into every block. Such modification of Bhaskaran would amount to impermissible hindsight by an Examiner who has seen the disclosure of the present invention.

The hypothetical goal of embedding into more blocks, or, better yet, into every block to more resemble the present claim 1, for the sake of increasing robustness, amounts to impermissible hindsight.

In fact, concern with robustness would be better met by repeating a different signature with each repetition, although the applicant realizes this does not fit the language of the present claim 1.

In particular, there exists no apparent motivation for modifying Bhaskaran for “determining a digital signature . . . ; and . . . repeating the coefficient values corresponding to the signature . . . such that each block includes a coefficient having a value corresponding to a signature digit.

For at least the foregoing reasons, claim 1 is not rendered obvious by Bhaskaran, and the applicant doubts that any modification of Bhaskaran to resemble claim 1 would have been obvious.

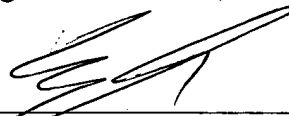
Claims 9 and 19 are system and software claims corresponding to method claim 1, and are likewise deemed to distinguish patentably over the applied reference.

Reconsideration and withdrawal of the foregoing rejections are respectfully requested.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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